

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A mattress protector to shield a mattress or mattress core from body fluids, the protector comprising:

a shielding cover to fit over the mattress, ~~or mattress core, the shielding cover~~ having a layer that is impermeable to body fluids and that is outermost in use when ~~[[the]]~~ said shielding cover is fitted over the mattress ~~or mattress core~~[[,]]; and

a detector ~~within the cover or below or in an under layer of the cover~~ below said impermeable layer of said shielding cover and above the mattress ~~or mattress core~~ when ~~[[the]]~~ said shielding cover is fitted over the mattress ~~or mattress core~~, the ~~detector being below the impermeable layer of the shielding cover~~, to detect body fluid that has ~~passed into or through the cover, the fluid having penetrated~~ ~~[[the]]~~ said impermeable layer of ~~[[the]]~~ said shielding cover.

2. (Currently Amended) ~~[[A]]~~ The mattress protector ~~as claimed in~~ according to Claim ~~[[1]]~~ 33, wherein: ~~[[the]]~~

said shielding cover is a transparent cover for ~~[[a]]~~ the mattress ~~with an inter-layer or under-layer having~~ and said layer has a dye that is activated by a body fluid to provide a visual indication of presence of the body fluid.

3. (Currently Amended) [[A]] The mattress protector as claimed in according to Claim 2, wherein: [[the]]

said dye is not reactive to water vapor.

4. (Currently Amended) [[A]] The mattress protector as claimed in according to Claim 3, wherein: [[the]]

said dye is ~~specifically~~ reactive to a member selected from the group consisting of at least one or more organic compounds compound in urine, and/or other and a body fluid fluids.

5. (Currently Amended) [[A]] The mattress protector as claimed in according to Claim [[2]] 33, wherein:

~~the inter-layer or under-layer~~ said layer is absorbent.

6. (Currently Amended) [[A]] The mattress protector as claimed in according to Claim [[2]] 33, wherein:

~~the inter-layer or under-layer~~ said layer is made from a stretchable material.

7. (Currently Amended) [[A]] The mattress protector as claimed in according to
Claim [[2]] 33, wherein:

[[the]] said detector comprises electrically conductive material in ~~or associated~~
~~with the inter-layer or under-layer~~ said layer whereby [[the]] said detector responds to
changes in electrical conductivity to detect body fluid that has passed through [[the]]
said shielding cover.

8. (Currently Amended) [[A]] The mattress protector as claimed in according to
Claim 7, wherein:

[[the]] said detector comprises electrically conductive threads ~~or fibers~~.

9. (Currently Amended) [[A]] The mattress protector as claimed in according to
Claim 8, wherein:

[[the]] said electrically conductive threads ~~or fibres~~ are configured in rows ~~or a~~
~~matrix over the inter-layer or under-layer~~ said layer.

10. (Currently Amended) ~~[[A]] The mattress protector as claimed in~~ according to Claim 8, wherein:

~~[[the]]~~ said layer has a warp and a weft and said electrically conductive threads form at least one of the said warp or said weft of the inter-layer or under layer said layer.

11. (Currently Amended) ~~[[A]] The mattress protector as claimed in~~ according to Claim 8, which further comprises:

a processor which monitors the electrical conductivity between neighboring conductive threads so that in the event of a leak of ~~ionic~~ ~~[[()]]electrically conductive[[()]]~~ fluid into ~~or through the~~ said mattress protector, a short circuit between threads will be detected and recorded.

12. (Currently Amended) ~~[[A]] The mattress protector as claimed in~~ according to Claim 11, wherein:

~~[[the]]~~ said processor is a microprocessor integrated with ~~[[the]]~~ said mattress protector and adapted to be in communication with an external device to determine if any leak events had occurred.

13. (Currently Amended) [[A]] The mattress protector ~~as claimed in~~ according to Claim 12, wherein:

[[the]] said microprocessor is within ~~or below the said shielding~~ cover and is adapted to be in communication with an inductive link.

14. - 15. (Cancelled)

16. (Currently Amended) [[A]] The mattress protector ~~as claimed in~~ according to Claim 8, wherein:

[[the]] said conductive threads ~~or fibres are included in the system as a knitted fabric, rather than a woven fabric for stretchability of the material.~~

17. (Currently Amended) [[A]] The mattress protector ~~as claimed in~~ according to Claim 7, wherein:

[[the]] said mattress protector is of a woven fabric and slits are provided in [[the]] said woven fabric ~~[[so as]] to allow for expansion of the material.~~

18. (Currently Amended) [[A]] The mattress protector as claimed in according to Claim 7, wherein further comprising:

a remote receiver connected to a computer, wherein when [[the]] said detector detects body fluid that has passed through [[the]] said shielding cover, a signal is ~~substantially immediately~~ transmitted to [[a]] said remote receiver ~~connected to a computer.~~

19. (Currently Amended) [[A]] The mattress protector as claimed in according to Claim 18, wherein further comprising:

~~the mattress protector has~~ a radio frequency transmitter situated inside the mattress to transmit [[the]] said signal to [[the]] said receiver.

20. (Currently Amended) [[A]] The mattress protector as claimed in according to Claim 18, wherein:

[[the]] said computer is programmed to record [[the]] a time and location ~~of the event~~ when body fluid has passed through said shielding cover, so that suitable action may be taken.

21. (Currently Amended) ~~[[A]] The mattress protector as claimed in~~ according
to Claim 7, wherein:

when ~~[[the]]~~ said detector detects body fluid that has passed through ~~[[the]]~~ said
shielding cover, ~~[[the]]~~ a circuit prompts a microcontroller to effect an irreversible
change in a visible indicator.

22. (Currently Amended) ~~[[A]] The mattress protector as claimed in~~ according
to Claim 21, wherein:

~~[[the]]~~ said visible indicator is visible from the outside of ~~[[the]]~~ said mattress
cover via ~~an appropriate~~ a clear window.

23. - 25. (Cancelled)

26. (Currently Amended) A mattress protector system, comprising: ~~as claimed~~
~~in Claim 1 in combination with a mattress~~

a mattress; and

a mattress protector fitted over said mattress, comprising a shielding cover to
fit over said mattress, having a layer that is impermeable to body fluids and that is
outermost in use when said shielding cover is fitted over said mattress; and a detector
below said impermeable layer of said shielding cover and above said mattress when

said shielding cover is fitted over said mattress, to detect body fluid that has penetrated said impermeable layer of said shielding cover.

27. (Currently Amended) [[A]] The mattress protector system according to Claim 26, wherein:

[[core]] ~~encased in a~~ said mattress protector encases said mattress ~~of Claim 1.~~

28. (New) A mattress protector according to Claim 1, wherein:

said mattress protector comprises at least a portion of a casing that envelopes the mattress.

29. (New) A method of monitoring the integrity of a mattress protector to determine if bodily fluids have penetrated through the mattress protector to a mattress or mattress core, the method comprising the steps of:

providing a mattress and a mattress protector fitted over said mattress, said mattress protector comprising a shielding cover having a layer that is impermeable to body fluids and that is outermost in use when said shielding cover is fitted over said mattress, and a detector below said impermeable layer of said shielding cover and above said mattress, when said shielding cover is fitted over said mattress; and

using said detector to detect body fluid that has passed into said shielding cover, said fluid having penetrated said impermeable layer of said shielding cover.

30. (New) A method of installing a mattress protector on a mattress or mattress core to shield the mattress or mattress core from body fluids, the method comprising the steps of:

providing a mattress and a mattress protector comprising a shielding cover to fit over said mattress, said shielding cover having a layer that is impermeable to body fluids and that is outermost in use when said shielding cover is fitted over said mattress and a detector below said impermeable layer of said shielding cover and above said mattress when said shielding cover is fitted over said mattress to detect body fluid that has penetrated said impermeable layer of said shielding cover; and fitting said mattress protector over said mattress.

31. (New) The mattress protector according to Claim 1, wherein:
said detector is disposed within said shielding cover.

32. (New) The mattress protector according to Claim 1, wherein:
said detector is disposed below said shielding cover.

33. (New) The mattress protector according to Claim 1, further comprising:
a layer disposed below said impermeable layer.

34. (New) The mattress protector according to Claim 33, wherein:
said detector is disposed in said layer.

35. (New) The mattress protector according to Claim 33, wherein:
said layer is an inter-layer.

36. (New) The mattress protector according to Claim 33, wherein:
said layer is an under-layer.

37. (New) The mattress protector according to Claim 33, wherein:
said detector comprises electrically conductive material associated with said
layer whereby said detector responds to changes in electrical conductivity to detect
body fluid that has passed through said shielding cover.

38. (New) The mattress protector according to Claim 8, wherein:
said electrically conductive threads are configured in a matrix over said layer.

39. (New) The mattress protector according to Claim 12, wherein:

said microprocessor is below said shielding cover and is adapted to be in communication with an inductive link.